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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,616	03/08/2005	Kikuo Makase	ADACHI-001XX	7247
28452 7590 ~ 01/29/2008 BOURQUE & ASSOCIATES INTELLECTUAL PROPERTY ATTORNEYS, P.A. 835 HANOVER STREET SUITE 301 MANCHESTER, NH 03104			EXAMINER HEINRICH, SAMUEL M	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 01/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,616

Applicant(s)

MAKASE ET AL.

Examiner

Samuel M. Heinrich

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 7-11, 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of DE19627913A1 in view of US20040136776A1 to Kehrer in view of JP354058641A.

AAPA discloses well known flange welding (Specification pages 1 and 2, Background Art). The mother member, or pipe, and the flange part are disclosed by AAPA, e.g., see Figures 4A and 4B.

DE19627913A1 shows (Figures 1, 2C, and 3) meandering beads.

Kehrer show (Figures 2-7) and describe [0006] "starting and end points of the welding bead therefore lie outside the more sensitive part" and show (Figures 2, 4, and 6) starting and end points which lie on paths which are turned away from the main weld path and these turned away paths extend further than the length of the crater.

JP354058641A describes (Abstract Constitution) "the weld lines do not converge ... accumulation of residual stress, etc. are prevented."

The use of meandering weld lines which turn back or turn away from a main path would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the turn back locates weld end stresses away from the main joint, reduces cracking, and provides longer life to the weld joint.

Claims 6, 12-15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of DE19627913A1 in view of US20040136776A1 to Kehrer in view of JP354058641A as applied to claims 1 and 16 above, and further in view of JP411077353A.

JP411077353A discloses well known long-focus laser beam in combination with a mirror.

The use of well known machining apparatus setup in a laser welding method would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the setup provides good beam positioning over a wide range of work pieces.

Claims 1-5, 7-11, 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of JP401321084A in view of US20040136776A1 to Kehrer in view of JP354058641A.

AAPA discloses well known flange welding (Specification pages 1 and 2, Background Art). The mother member, or pipe, and the flange part are disclosed by AAPA, e.g., see Figures 4A and 4B.

JP401321084A describes well known shaping of a bead pattern in order to improve weld strength and quality, e.g., see Figures 1-4.

JP354058641A describes (Abstract Constitution) "the weld lines do not converge ... accumulation of residual stress, etc. are prevented."

The use of a meandering weld line would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides longer life to the weld joint and reduces cracking.

Claims 6, 12-15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of JP401321084A in view of US20040136776A1 to Kehrer in view of JP354058641A as applied to claims 1 and 16 above, and further in view of JP411077353A.

JP411077353A discloses well known long-focus laser beam in combination with a mirror.

The use of well known machining apparatus setup in a laser welding method would have been obvious at the time applicant's invention was made to a person having

ordinary skill in the art because the setup provides good beam positioning over a wide range of work pieces.

Response to Arguments

Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed November 13, 2007 have been fully considered but they are not persuasive.

Applicant argues no reference teaches or suggests the welding path being turned back and not overlapping. This argument is not convincing. DE19627913A show (Figures 2c and 3) weld paths which begin to turn back and do not overlap. JP401321084A shows a weld path which turns back.

Applicant argues that JP354058641A is drawn to butt joints and not to lap joints. This argument is not convincing. JP354058641A was relied upon for the description "the weld lines do not converge ... accumulation of residual stress, etc. are prevented." It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, forming the instant weld configuration using a lap joint has similar process considerations with respect to control of residual stresses as does forming a butt joint.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 4,507,43 to Ukai et al, JP403118970A, JP403285766A, JP409029444A, and JP02000343218A pertain to finishing weld beads having a good quality end or crater.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

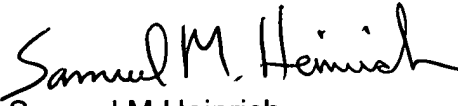
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Samuel M Heinrich
Primary Examiner
Art Unit 1725